IN THE CLAIMS:

Please amend the above identified application by entering the amended claims as set forth below in marked-up form, in place of that which was previously filed. In accordance with the revised amendment format now permitted, a clean version of the claims has been omitted.

1. (Presently Amended) A motion vector conversion method for an image information conversion method wherein a bit stream representative of interlaced scanned image compression information of MPEG2 is inputted and a bit stream representative of progressively scanned image compression information of MPEG4 is outputted, comprising the steps of:

successively accepting 16 × 16 motion vectors of MPEG2 of the inputted bit stream representative of image compression information of MPEG2; and

successively producing 8 × 8 motion vectors of MPEG4 and 16 × 16 motion vectors of MPEG4 based on the 16 × 16 motion vectors of MPEG2 such that every other one of P frames of the bit stream of MPEG2 is dropped to produce a bit stream of MPEG4 of a reduced frame rate and a low bit rate;

the successively producing step serving also as a motion vector modification step and including a step of storing information of each of macro blocks and between blocks in the inputted bit stream representative of image compression information of MPEG2 in advance, a step of duplicating motion vectors of a P frame immediately preceding ~~to~~ each P frame to be dropped based on the stored information and a step of extending the duplicated motion vectors to twice in the temporal direction to produce motion vectors of MPEG4 converted from an intra-frame of MPEG2.

2. (Presently Amended) A motion vector conversion method for an image information conversion method wherein a bit stream representative of interlaced scanned image compression information of MPEG2 is inputted and a bit stream representative of progressively scanned image compression information of MPEG4 is outputted, comprising the steps of:

successively accepting 16 × 16 motion vectors of MPEG2 of the inputted bit stream representative of image compression information of MPEG2; and

successively producing 8 × 8 motion vectors of MPEG4 and 16 × 16 motion vectors of MPEG4 based on the 16 × 16 motion vectors of MPEG2 such that every other one of I frames and P frames of the bit stream of MPEG2 is dropped to produce a bit stream of MPEG4 of a reduced frame rate and a low bit rate;

the successively producing step including a step of utilizing, as a parameter for discrimination of the coding efficiency of a motion vector of MPEG4 converted from an intra-frame of MPEG2, motion vector information of each of macro blocks and between blocks of the inputted bit stream representative of image compression information of MPEG2 converted immediately preceding to the intra-frame to compare the motion vector information with a prediction value of the 0 motion vector to select ~~that~~ one of the motion vectors which exhibit a comparatively small prediction residual as a motion vector having a comparatively high coding efficiency.

3. (Presently Amended) A motion vector conversion method for an image information conversion method wherein a bit stream representative of interlaced scanned image compression information of MPEG2 is inputted and a bit stream representative of progressively scanned image compression information of MPEG4 is outputted, comprising the steps of:

successively accepting 16 × 16 motion vectors of MPEG2 of the inputted bit stream representative of image compression information of MPEG2; and

successively producing 8 × 8 motion vectors of MPEG4 and 16 × 16 motion vectors of MPEG4 based on the 16 × 16 motion vectors of MPEG2 such that every other one of I frames and P frames of the bit stream of MPEG2 is dropped to produce a bit stream of MPEG4 of a reduced frame rate and a low bit rate;

the successively producing step serving also as a motion vector modification step and including a step of successively accepting 8 × 8 motion vectors of MPEG4 converted by a motion vector conversion method from motion vectors of MPEG2 based on motion vector information in the inputted bit stream representative of image compression information of MPEG2, a step of performing a re-search for a motion vector centered at each of the input motion vector values to modify the motion vector, and a step of allocating ~~that~~ one of each four 8 × 8 motion vectors of MPEG4 cooperatively forming a macro block which exhibits the lowest prediction residual to a 16 × 16 motion vector to produce the 16 × 16 motion vector.

4. (Presently Amended) A motion vector conversion apparatus for an image information conversion apparatus wherein a bit stream representative of interlaced scanned image compression information of MPEG2 is inputted and a bit stream representative of progressively scanned image compression information of MPEG4 is outputted, comprising:

motion vector production means for accepting 16 × 16 motion vectors of MPEG2 of the inputted bit stream representative of image compression information of MPEG2 and successively producing 8 × 8 motion vectors of MPEG4 and 16 × 16 motion vectors of MPEG4;

dropping means for dropping every other one of P frames of the inputted bit stream of MPEG2 and supplying 16 × 16 motion vectors of MPEG2 of the remaining I frames and P frames to said motion vector production means so that a bit stream of MPEG4 of a reduced frame rate and a low bit rate may be produced by said motion vector production means; and

storage means serving also as a motion vector modification apparatus for storing information of each of macro blocks and between blocks in the inputted bit stream representative of image compression information of MPEG2 in advance;

said motion vector production means being operable to duplicate motion vectors of a P frame immediately preceding ~~to~~ each P frame to be dropped based on the information stored in said storage means and extend the duplicated motion vectors to twice in the temporal direction to produce motion vectors of MPEG4 converted from an intra-frame of MPEG2.

5. (Original) A motion vector conversion apparatus for an image information conversion apparatus wherein a bit stream representative of interlaced scanned image compression information of MPEG2 is inputted and a bit stream representative of progressively scanned image compression information of MPEG4 is outputted, comprising:

motion vector production means for accepting 16 × 16 motion vectors of MPEG2 of the inputted bit stream representative of image compression information of MPEG2 and successively producing 8 × 8 motion vectors of MPEG4 and 16 × 16 motion vectors of MPEG4;

dropping means for dropping every other one of I frames and P frames of the inputted bit stream of MPEG2 and supplying 16 × 16 motion vectors of MPEG2 of the remaining I frames and P frames to said motion vector production means so that a bit stream of MPEG4 of a reduced frame rate and a low bit rate may be produced by said motion vector production means; and

selection means utilizing, as a parameter for discrimination of the coding efficiency of a motion vector of MPEG4 converted from an intra-frame of MPEG2, motion vector information of each of macro blocks and between blocks of the inputted bit stream representative of image compression information of MPEG2 converted immediately preceding to the intra-frame to compare the motion vector information with a prediction value of the 0 motion vector to select that one of the motion vectors which exhibit a comparatively small prediction residual as a motion vector having a comparatively high coding efficiency.

6. (Presently Amended) A motion vector conversion apparatus for an image information conversion apparatus wherein a bit stream representative of interlaced scanned image compression information of MPEG2 is inputted and a bit stream representative of progressively scanned image compression information of MPEG4 is outputted, comprising:

motion vector production means for accepting 16 × 16 motion vectors of MPEG2 of the inputted bit stream representative of image compression information of MPEG2 and successively producing 8 × 8 motion vectors of MPEG4 and 16 × 16 motion vectors of MPEG4; and

dropping means for dropping every other one of I frames and P frames of the inputted bit stream of MPEG2 and supplying 16 × 16 motion vectors of MPEG2 of the remaining I frames and P frames to said motion vector production means so that a bit stream of MPEG4 of a reduced frame rate and a low bit rate may be produced by said motion vector production means;

said motion vector production means serving also as a motion vector modification apparatus and operable to successively accept 8 × 8 motion vectors of MPEG4 converted by a motion vector conversion apparatus from motion vectors of MPEG2 based on motion vector information in the inputted bit stream representative of image compression information of MPEG2, perform a re-search for a motion vector centered at each of the input motion vector values to modify the motion vector, and ~~that~~ allocate one of each four 8 × 8 motion vectors of MPEG4 cooperatively forming a macro block which exhibits the lowest prediction residual to a 16 × 16 motion vector to produce the 16 × 16 motion vector.